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ANNUAL REPORT

OF THE

Public Health Department of the
City of Port-of-Spain

FOR THE YEAR

1943

BY

RODERICK MARCANO, M.D. (Lond.); M.R.C.P. (Lond.); D.P.H. (Lond.).
MEDICAL OFFICER OF HEALTH.

TRINIDAD :

PRINTED BY THE GOVERNMENT PRINTER,
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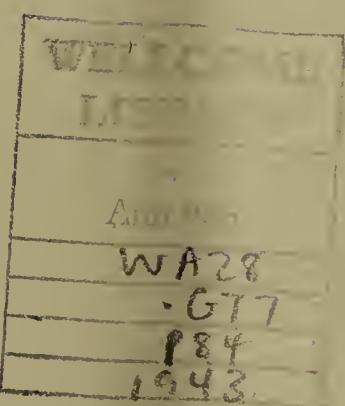
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Local Authority in the Urban Sanitary District of the City of Port-of-Spain.

1942-43.

The City Council.

HIS WORSHIP THE MAYOR (ALDERMAN TITO P. ACHONG, B.A., M.D., D.T.M., J.P.).

Deputy-Mayor.

COUNCILLOR E. M. MITCHELL.

Aldermen.

H. A. DE FREITAS	J. M. THORNE
E. W. HARRIS	V. R. VIDALE.

Councillors.

N. K. ABLACK	G. J. McCARTHY
A. GOMES	L. A. PUJADAS
V. E. HENRY	ALFRED RICHARDS
H. W. HUDSON PHILLIPS, L.L.B.	L. B. THOMAS
B. T. KYDD	L. WALCOTT
J. E. LAI-FOOK	C. WARD
R. MAINGOT	H. O. B. WOODING.

Annual Report of the Public Health Department of the City of Port-of-Spain, 1943.

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PUBLIC HEALTH DEPARTMENT,
35, FREDERICK STREET,
PORT-OF-SPAIN,
TRINIDAD, B.W.I.

24th October, 1944.

URBAN SANITARY DISTRICT OF THE CITY OF PORT-OF-SPAIN.

SECRETARY, LOCAL AUTHORITY,

SIR,

I have the honour to submit, for the information of the Local Authority, the Annual Report on the health and sanitary condition of the Urban Sanitary District of the City of Port-of-Spain for the year ended 31st December, 1943.

The state of the public health may be considered quite satisfactory, all things considered, there having been no outbreaks of epidemic disease or unusual insanitary conditions to exert their adverse effects and during this the fourth year of War, in spite of the hardship and deprivation inevitable to the conducting of hostilities, the health and sanitary condition of the Urban Sanitary District suffered no deterioration.

In fact, with a few prominent exceptions, the vital statistics showed an all round general improvement.

The estimated mean population increased from 99,058 to 101,870 and the birth rate from 34·31 to 36·82 per 1,000 population; the general death rate declined from 19·30 to 18·28 per 1,000 population, the infant mortality rate from 93·84 to 75·45 and maternal mortality rate from 3·82 to 3·20 per 1,000 live births.

As regards death rates from individual diseases, the figures remained at practically the same level as last year with the exception of deaths from diseases of the heart and blood vessels, Bright's disease and nephritis, and diseases of the nervous system including cerebral haemorrhage where increases from 2·42 to 2·94, ·76 to ·88 and 1·68 to 1·71, respectively, were recorded.

The year under review presented the usual crop of problems, many of which still remain unsolved even at the time I write, *viz.*: the lack of an adequate supply of water and the accidental introduction, on one occasion, of muddy Maraval River water into the distribution system; the imperfect scavenging of the Sanitary District due, in large measure, to insufficiency of labour and essential equipment; the overcrowding of the City, particularly the down-town areas, which is now acute and is a cause of great anxiety and concern to the Department, and last but not least, the unsatisfactory food situation which resulted in intermittent shortages of essential foodstuffs like meat, fish, eggs, green vegetables, fresh fruit, etc., with disturbing frequency.

Happily, the position today is much more favourable and there is less concern as to the possible effect of these various problems on the public health: the water situation has definitely improved, the scavenging of the City is undoubtedly much better, efforts are actively under way to reduce overcrowding, and the food problem is much easier.

In these difficult times the Department was greatly sustained by the ready help and unfailing co-operation of the Local Authority and our heartfelt thanks are due to His Worship the Mayor, Aldermen, and Councillors for their unfailing interest in, and sympathetic consideration of, all matters appertaining to the health of the Urban Sanitary District which engaged their attention during the year under report.

As usual, the City Engineer's and the Town Clerk's Department never failed to lend their quota to the Public Health Department in all endeavours directed to the amelioration of the public health and I am again to record many thanks.

I have the honour to be,

Sir,

Your obedient Servant,

RODERICK MARCANO,
Medical Officer of Health.

SANITARY CIRCUMSTANCES.

Water.

The sources of water supply to the City in the year under review continued to be the same as in former years and as detailed in previous annual reports but the problem of the Maraval River was considerably aggravated as a result of the fouling of the tributaries of that river by continuous landslides which occurred during the course of construction of the road to Maracas Bay and the fairly constant downpours which succeeded in washing the dirt from these landslides into the river itself.

As a consequence the Maraval Stream in the latter half of the year was nearly always muddy and the water had, perforce, to be excluded from the Reservoir. As a matter of fact, through negligence on the part of a sleeping caretaker, muddy water actually found its way into the Reservoir and eventually into the ramifications of the distribution system—a circumstance which gave rise to a certain amount of commotion on the part of the City's residents and to numerous complaints of muddy "ginger beer" water.

The loss of the supply from the Maraval River for the greater part of the rainy season was responsible for the acute shortage of the general supply already admittedly inadequate for the needs of the greatly increased population. Late in the year, by means of a method of screening and by making use of two of the basins of the Maraval Reservoir as sedimentation tanks, the muddy water was rendered clear and, after chlorination, potable.

It is my duty to repeat once more what I have said on many occasions and written very often, viz.: the catchment areas of our sources of water supply and in particular of our river sources are showing evidence of increasing pollution with the result that greater demands are being made on filtration and chlorination to make potable a raw product that should quite definitely be of a higher standard of purity.

Dr. J. L. Pawan continues to render invaluable service by his daily examination of the mixed water supply and weekly examination of samples from the individual sources, and our thanks are due him for the information thereby derived without which it would be difficult to maintain a pure water supply.

Bacteriological Examination of Water Supply. (Mixed.)

No. of daily samples examined	No. of samples with B. Coli present (B. Coli in 50 C.C.)	Percentage of Samples with B. Coli present.	No. of samples with B. Coli absent. (B. Coli in 50 C.C.)	Percentage of samples with B. Coli absent.
365	84	23·01	281	76·99

Bacteriological Examination of Water Supply.

Number of Weekly and other Samples giving Positive Results (B. Coli present in 100 c.c.)

Where Derived.	BEFORE CHLORINATION.		AFTER CHLORINATION.	
	Total Samples.	No. of Samples with B. Coli present.	Total Samples.	No. of Samples with B. Coli present.
*Maraval (River)	2	2	65	13
St. Clair (Pumping Station)	—	—	53	3
*St. Clair (Wells)	16	4	—	—
†Quare Flow into Knagg's Hill (Reservoir) ...	—	—	56	13
†St. Ann's (River)	—	—	51	4
†Cascade (River)	—	—	47	8
†Cocorite (Wells)	—	—	55	17
‡ Diego Martin (Wells)	1	1	49	10

Note.—B. coli present=Presumptive B. coli.

Samples with B. Pyocyanus present.

Where Derived.	Before Chlorination.	After Chlorination.
*Maraval	—	1
*St. Clair (Wells)	2	—
†Knagg's Hill Reservoir (Quare Flow) ...	—	4
†St. Ann's	—	1
‡ Diego Martin	—	1

* Filtered after Chlorination.

† Filtered before Chlorination.

‡ Not filtered.

Scavenging and Refuse Disposal.

The scavenging of the Urban Sanitary District and the efficient disposal of refuse therefrom fell short of the wonted standard in the year under report.

This was due to a variety of difficulties, *e.g.*, shortage of labour, lack of equipment and disorder on the dumps, eastern and western. As long as work could be had elsewhere and especially on the American Bases it was difficult to get labour to do scavenging work at the price the Council could afford to pay, and the Council found itself short of mules, and the lorries set aside for scavenging work were all old and subject to numerous periods of enforced idleness due to old parts breaking down, worn tyres giving way, &c., &c.; in addition to the shortage of labour and the indiscriminate dumping of refuse in an irregular way, the swarms of people who found themselves on the dumps in an effort to salvage any and everything of value that may have been deposited by the American garbage trucks particularly, were responsible for so much disorder and confusion that it was well nigh impossible to maintain a sanitary dump until towards the end of the year when drastic measures were instituted, in co-operation with the Police, to keep strangers off the dumps.

As I write, the position is definitely better, more labour is available, the Cocorite Dump has been closed down, the Eastern Dump is in much better condition and new trucks have been put at the disposal of the Council by the Transport Emergency Board.

SANITARY INSPECTION OF THE DISTRICT.

Anti-Rat and Anti-Mosquito Measures.

The routine work of the Department under this heading continued unabated throughout the year under review, particular emphasis being laid on intensive anti-rat measures because of the occurrence of plague in certain of the South American Republics, and to anti-aedes measures because of an outbreak of equine encephalomyelitis in certain parts of the southern half of the Colony.

Our anti-rat gangs collaborated with rat gangs operated by the American Army Authorities in the Dock Site Area in keeping down the rat population of the harbour area and in endeavouring to prevent rats on board ship getting ashore, and similarly our anti-mosquito units collaborated with the anti-mosquito units employed by the Americans in oiling the bed of the Maraval River and in preventing the breeding of mosquitoes in the Woodbrook, St. Clair and Rapsey Camp areas.

DESTRUCTION OF RATS AND MICE.

Rats caught by Trappers .. . . . .	..	..	..	..	14,707
Rats bought .. . . . .	..	..	..	..	104
Total .. . . . .	..	..	..	..	14,811
Mice caught and destroyed .. . . . .	..	..	..	..	7,082

EXAMINATION OF RATS BY GOVERNMENT BACTERIOLOGIST.

Rats examined for Plague .. . . . .	..	..	..	..	14,811
Rats found infected with Plague .. . . . .	..	..	..	..	—
Immature Rats not examined .. . . . .	..	..	..	..	—

SPECIES.

		<i>Decumanus.</i>	<i>Rattus.</i>	<i>Total.</i>
Males .. . . . .	..	3,539	3,970	7,509
Females .. . . . .	..	3,849	3,453	7,302
Total .. . . . .	..	7,388	7,423	14,811

Inspection of Eaves Gutters, &c.

Number of Inspections of Premises (Anti-Mosquito Unit) ..	..	77,776
Number of Inspections of Eaves Gutters .. . . . .	..	15,507
Number of occasions found in good order .. . . . .	..	14,690
Number of occasions found defective .. . . . .	..	817
Number of occasions found containing water .. . . . .	..	232
Number of occasions found containing water and larvae .. . . . .	..	279
*Number of occasions mosquito larvae were found in tubs, antiformicas, tin cans, &c. .. . . . .	..	4,855
Yards cleared of receptacles .. . . . .	..	5,278

N.B.—*Occasions on which mosquito larvae were found by Sanitary Inspectors, during the course of 79,060 inspections of premises, are included in above figure.

Larval Index.

<i>Year.</i>	<i>Premises with mosquito larvae per cent. of number visited.</i>					
1938	2.58
1939	1.70
1940	1.45
1941	1.83
1942	2.94
1943	3.27

(A) Premises and Occupations Controlled by Bye-Laws and Regulations.**FOOD.**

Scarcity of essential foodstuffs occurred fairly often during the year 1943 and the queues of people waiting for the shops to open to purchase a tin of milk or a pound of rice were familiar scenes which come back vividly to the mind. There was a time during the year when a shortage of meat lasted for fully a month because of disagreement over the matter of price between the Venezuelan cattle owners and the Control Board. Eggs and green vegetables were very scarce on occasions and fruit sometimes; butter and cheese were not always available and the prevailing high prices made it difficult for the ordinary man in the street to get his fair share.

The work of the Department designed to secure the cleanliness and the freedom from contamination of food consumed by the general public, and to ensure the registration of all food shops and itinerant vendors and the medical examination of all food handlers, continued unabated but the difficulties in the way of attaining these essential requirements multiplied in proportion as it became difficult to get proper screening material for trays, cupboards, &c., an ample supply of running water and frequent changes of clean clothes, and the necessary food badges.

The most that it is possible to record is that a better and more sympathetic understanding of the aims and purpose of the campaign and a greater appreciation of the value of good clean food with a fuller consciousness of its implications are becoming apparent and to that extent the progress made is heartening.

Sale of Milk Bye-Laws.

<i>Sub-District.</i>	<i>DAIRIES AND MILK SHOPS.</i>				<i>Cowshed Licences Issued.</i>
City proper	1
East Dry River (unsewered)	—
Belmont (unsewered)	1
Woodbrook (partly unsewered)	2
St. James (unsewered)	14
Total	18
Total 1942	14

DAIRYMEN'S LICENCES.

Dairyman's Licences issued to cowkeepers and other purveyors of milk	..	..	..	..	18
Dairyman's Licences issued to shops, milk bars and refreshment parlours	..	..	..	..	62
Total	..	..	..	..	80
Total 1942	..	..	..	..	89

MILK VENDORS' LICENCES AND BADGES.

<i>City and Out-Districts.</i>	<i>Milk Vendors' Licences.</i>	<i>Cows Tuberculin Tested.</i>	<i>Badges.</i>
Port-of-Spain	..	80	25
Out-Districts	..	36	39
Total	..	116	64
Total 1942	..	104	46

Sale of Foodstuffs Bye-Laws.

REGISTRATION OF SHOPS, &c.

Provision, Meat and Spirit Shops, Restaurants, Hotels,				
Refreshment Parlours	..	..	..	313
Ground Provision and Fruit Shops	..	..	..	10
Bakehouses	..	..	..	26
Confectionery Shops	..	..	..	3
Aerated Water Factories	..	..	..	4
Other Factories	..	..	..	6
				—
Total	..	..	..	362
				—
Total 1942	..	..	..	594
				—

REGISTRATION OF VENDORS.

Bread and Cakes	..	..	..	..	24
Confectionery	..	..	..	..	10
Cooked Food including Fries, Souse, &c.	..	..	..	..	32
Meat, Fish and Cheese	..	..	..	..	3
Ice Cream and Palets	..	..	..	..	40
Sweet Drinks	..	..	..	..	39
Vegetables, Greens and Fruits	..	..	..	..	81
Miscellaneous	..	..	..	..	58
					—
Total	..	..	..	..	287
					—
Total 1942	..	..	..	..	368
					—

Number of Badges issued to itinerant vendors	..	..	287 (1942-368)
Number of Oyster Vendors licensed under Sale of Oyster Bye-laws			5 (1942-4)

FOODSTUFFS SEIZED OR SURRENDERED AND DESTROYED.

Under Part X of the Public Health Ordinance, Ch. 12. No. 4.

Aerated drinks	...	...bottles	...	3	Milk (Condensed and evaporated)	cases	...	803
Beef (fresh)	...	...pounds	...	331		tins	...	2,459
Bread	...	...loaves	...	2	Onions	...bags	...	450
Cheese	...	...pounds	...	1,740		crates	...	303
Fish (fresh)	...	...pounds	...	115	Potatoes	...barrels	...	28
Fish (preserved) ...		...tins	...	8		crates	...	848
Meats (preserved) including beef, pork, ham		barrels cases pounds tins	...	8 84 836 276	Sausage	...pounds	...	102
					Yeast	...pounds	...	14,650

(B) Premises Used for Human Habitation, Houses Let in Lodgings, Common Lodging Houses.

The problem of housing accommodation for the increasing population of the City could not be more acute and is a cause of very great concern and anxiety to the Public Health Department. The problem has been aggravated by the fact that very few houses for the accommodation of the poorer section of the community have been built during the year under report.

And yet it is not for want of trying, for want of bringing the situation to the notice of those who have been entrusted with the providing of houses for members of the working classes or for want of representation to Government. In fact, it would seem that the difficulties in the way of providing additional housing accommodation are almost insuperable. A deputation of the City Council met a deputation of Government at the Colonial Secretary's Office when opportunity was taken to discuss the problem in its entirety, the question of temporary houses was discussed and a decision taken to give it immediate favourable consideration even to the point of erecting, if necessary, temporary houses in the squares of the City and yet not a single thing came out of it—no houses either temporary or permanent were erected.

It is true that houses continue to go up at Morvant but these numbers are wholly inadequate and we must not be unmindful of the fact that there is great reluctance on the part of the people to go to Morvant because of the prevalence of malaria and of the difficulty of transport to and from the City.

The result of all this is that overcrowding in nearly all sub-districts of the City, but particularly in the City proper, is extreme and the conditions now obtaining are ripe for the spread of infectious disease. Increased vigilance, it is true, is being exercised so as to avoid such a possibility, but it must be remembered that in circumstances such as these vigilance alone may be insufficient to prevent a disastrous catastrophe when once dangerous infectious disease has been introduced.

In the meantime the tales of hardship and suffering that are being brought every day to the Public Health Department are harrowing indeed and people continue to stream in and out of the Department looking for houses which we are unable to find them.

By the beginning of this year the situation had deteriorated to such an extent that Government by one of the boldest bills on record—the Slum Clearance and Housing (Temporary Provisions) Ordinance—have set up a Slum Clearance Committee to which is entrusted the work of getting rid of the slums of Port-of-Spain and San Fernando and of erecting thereon housing accommodation on modern lines for the dispossessed tenants and, at the moment I write, the Committee is actively engaged in performing its labours.

HOUSING.

Details.	Resulting from Services of Notices.	Voluntarily on Owners' Part.	Total.
Barracks and other premises reconstructed or reconditioned	4	123	127
Barracks demolished and sites left vacant	25	—	25
Barracks vacated	5	1	6
Total	34	124	158
New Buildings	—	—	27

VITAL STATISTICS OF THE DISTRICT.

Comparative Summary of Vital Statistics.

(Unless otherwise stated rates are per 1,000 population.)

	1921	1941	1942	1943	U.S.A. [†] 1943
Area of City in Acres (pastures and open spaces included)	1,793	2,540	2,540	2,540	—
Estimated Population (Mean)	61,386	97,531	99,058	101,870	—
Density of Population (persons per acre)	34·2	38·4	38·6	40·1	—
Total Live Births	1,687	2,888	3,399	3,751	—
Birth Rate	27·28	29·61	34·31	36·82	21·30
Still Births Registered	154	211	257	230	—
*Still Birth Rate	91·3	73·0	75·61	61·32	—
Marriages Registered	534	1,274	1,882	1,557	—
Marriage Rate	8·64	13·06	19·00	15·29	—
Total Deaths	1,659	1,705	1,912	1,862	—
Death Rate	26·83	17·48	19·30	18·28	10·90
Natural Increase of Population	28	1,183	1,487	1,889	—
Deaths under one year	287	314	275	283	—
*Infant Mortality Rate	170·12	108·73	93·84	75·45	40·00
*Maternal Mortality Rate	—	5·89	3·82	3·20	2·30
<i>Death Rates:</i>					
Notifiable Infectious Diseases	6·21	2·50	3·17	3·20	—
Pulmonary Tuberculosis	2·49	1·27	1·37	1·45	.41
Tuberculosis (other forms) .. ..	.26	.06	.05	.09	—
Enteric Fever	1·25	.14	1·2	.12	.005
Pneumonia (all Forms)	1·97	.90	1·53	1·46	.52
Bronchitis	1·36	.46	.66	.59	—
Diphtheria .. ..	.02	.02	.03	.04	—
Malaria .. ..	.89	.24	.25	.38	—
Syphilis .. ..	.21	.19	.14	.28	.11
Diarrhoea and Enteritis	1·91	1·07	.84	.85	.01
Influenza .. ..	.26	.04	.04	.02	.13
Ankylostomiasis .. ..	.15	.03	.01	.03	—
Bright's Disease and Nephritis	2·09	1·12	.76	.88	.75
Diseases of the Heart and Blood Vessels	2·65	1·79	2·42	2·94	3·24
Diseases of the Nervous System including Cerebral Haemorrhage	1·70	1·55	1·68	1·71	—
Cancer and other Malignant Diseases .. ..	.63	.71	.85	.86	1·25

*Per 1,000 births.

Note:—City's Mean population (101,870)=19·26 per cent. of Colony's Mean population (528,834).

† U.S.A. figures are approximate.

Births and Birth Rates.**Deaths and Death Rates.**

The birth rate of 36.82 and the death rate of 18.28 per 1,000 population; the latter being almost exactly half the former, represent a slight increase of the birth rate 34.31, and a slight reduction of the death rate, 19.30 per 1,000 population for the previous year, 1942.

I need hardly point out that the death rates referred to here are crude death rates, it being impossible to work out standardised figures because of lack of data concerning the age distribution of the population and the relative proportion in different occupations.

As regards distribution, the St. Clair Sub-District showed the lowest death rate, 8.20 per 1000, and the East Dry River and Belmont areas the highest, 16.50 and 16.60 per 1,000, respectively. This is in accord with well known facts, St. Clair being the most sanitary of the sub-districts and housing the better class, fairly well-to-do residents of the City, and East Dry River and Belmont being the least sanitary, with narrow congested lots served by privy cesspits and housing the poorest section of the community.

Births.

	Months.				Males.	Females.	Both Sexes.	Birth Rate per 1,000 population.
January-March	486	457	943	37.54
April-June	457	444	901	35.48
July-September	428	411	839	32.68
October-December	567	501	1,068	41.59
Total	1,938	1,813	3,751	36.82

Deaths.

	Months.				Males.	Females.	Both Sexes.	Death Rate per 1,000 population.
January-March	217	199	416	16.56
April-June	201	207	408	16.06
July-September	277	250	527	20.53
October-December	261	250	511	19.90
Total	956	906	1,862	18.28

Deaths in Sub-districts of the City.

Sub-District.	Mean Population.	DEATHS.				Total Deaths in Sub-district.	Rate per 1,000 population.
		PLACE OF OCCURRENCE.	Home, &c.	Colonial Hospital.	Royal Gaol.		
City Proper	35,049	258	240	7	—	505	14.41
St. Clair	1,708	14	—	—	—	14	8.20
East Dry River	22,610	243	130	—	—	373	16.50
Belmont	17,165	191	94	—	—	285	16.60
Woodbrook	12,927	101	41	—	—	142	10.99
St. James	11,961	168	49	—	326	543	*45.40
Total	101,870	975	554	7	326	1,862	18.28

* See Table: "Comparison of Death Rates".

Chart A
Port-of-Spain

BIRTH-RATES and DEATH-RATES per 1,000 Population 1920-1943.



Age Distribution of Deaths.

	Period.		Males.	Females.	Both Sexes.	Percentage of Total Mortality at All Ages.
Under 1 year	156	127	283	15·20
1-5 years	55	47	102	5·48
6-10 do.	12	10	22	1·18
11-20 do.	37	38	75	4·02
21-30 do.	77	64	141	7·57
31-40 do.	89	79	168	9·03
41-50 do.	110	66	176	9·45
51-60 do.	111	110	221	11·87
Over 60 years	309	365	674	36·20
Total	956	906	1,862	—

Comparison of Deaths at different Age Periods, 1928-43.

Period.	Total Deaths at All Ages.	DEATHS UNDER 1 YEAR.		DEATHS 1-5 YEARS.		DEATHS 55-60 YEARS.		DEATHS OVER 60 YEARS.	
		No.	Percentage of Total Deaths.	No.	Percentage of Total Deaths.	No.	Percentage of Total Deaths.	No.	Percentage of Total Deaths.
Yearly Averages:									
1928-32	1,327	230	17·42	81	6·06	94	7·09	336	25·10
1933-37	1,167	215	18·24	62	5·29	87	7·57	289	24·74
1938	1,410	204	14·46	69	4·89	107	7·58	484	34·33
1939	1,516	242	15·96	56	3·69	108	7·13	539	35·55
1940	1,568	291	18·56	59	3·76	101	6·44	564	35·97
1941	1,705	314	18·42	85	4·99	113	6·63	594	34·84
1942	1,912	322	16·84	71	3·71	157	8·21	648	33·90
1943	1,862	283	15·20	102	5·48	131	7·04	674	36·20

Comparison of Death Rates.

			No. of Deaths.	Death Rate per 1,000 population.
(1) City (St. James excluded)	...	...	1,319	14·67
(2) City, including St. James	...	...	1,862	18·28
(3) City, as in (2), but omitting House of Refuge...	...	...	1,536	15·18
(4) St. James (House of Refuge excluded)	...	...	217	19·27

Causes of Deaths.

Of the 1,862 deaths certified by various practitioners in the year 1943, the largest number, 326, were certified to the notifiable infectious diseases with pneumonia claiming 149 victims and pulmonary tuberculosis 148; the next highest number, 301, were caused by diseases of the circulatory system and third on the list, 210, were diseases of the digestive system. 90 deaths were attributed to diseases of the kidney and 88 to cancer and the malignant diseases.

In all civilized countries of the world cardiac and vascular diseases are heading the list of causes of deaths, a circumstance which is partly attributable to increasing longevity and the consequent increased population at the higher age-groups in which morbidity and mortality from heart and vascular disease are at the highest, and partly to the increasing stress and strain of modern life leaving its indelible mark on the delicate tissues of the heart and vascular system.

Causes of Deaths.

I.—GENERAL DISEASES.

(a) Notifiable Infectious Diseases.

Enteric Fever	...	...	...	12
Diphtheria	...	...	...	4
Membranous Croup	...	...	—
Pulmonary Tuberculosis	...	...	148	
Tuberculosis (other forms)	...	...	9	
Pneumonia (all forms)	...	...	149	
Ophthalmia Neonatorum	...	...	—
Plague	...	...	—
Cholera	...	...	—
Small Pox	...	...	—
Typhus Fever	...	...	—
Yellow Fever	...	...	—
Encephalitis Lethargica	...	...	—
Acute Poliomyelitis	...	...	—
Acute Ascending Myelitis	...	...	—
Cerebro-Spinal Fever	...	...	1	
Puerperal Fever	...	...	3	
Anthrax	...	...	—
			326	

(b) Non-Notifiable Infectious Diseases.

Malaria	...	...	...	38
Whooping Cough	...	...	—
Influenza	...	...	2	
Measles	...	...	15	
Dysentery	...	...	6	
Ankylostomiasis	...	...	3	
Syphilis	...	...	29	
Other Venereal Diseases	...	...	6	
Black Water Fever	...	...	—
			99	

II.—OTHER DISEASES.

(a) General Diseases not included above.

Cancer and other Malignant Diseases	88
Pellagra	—
Scurvy Rickets	2
Leprosy	1
Other General Diseases	86
	177

(b) Diseases of the Nervous System and Organs of Special Sense.

Simple Meningitis	...	...	11
Cerebral Haemorrhage	...	...	78
Apoplexy	...	...	4
Convulsions of Children under 5 years	7		
Other diseases of the Nervous System	74		

(c) Diseases of the Circulatory System.

Cardiac and Vascular Diseases	...	299
Other Circulatory Diseases	...	2
		301
		—
		—

(d) Diseases of the Respiratory System.

Bronchitis	...	...	60
Other diseases of the Respiratory System	...	...	44
			—
			—
			104
			—

(e) Diseases of the Digestive System.

Diarrhoea and Enteritis	...	...	87
Cirrhosis of Liver	...	...	13
Other diseases of the Digestive System	...	...	110
			—
			210
			—

(f) Non-Venereal Diseases of the Genito-Urinary System.

Bright's Disease	...	...	1
Nephritis	...	...	89
Other Non-Venereal Diseases	...	...	68
			—
			158
			—
			9

(g) Diseases of the Puerperal State. (Other than Puerperal Fevers)

Puerperal Eclampsia	...	...	1
Puerperal Haemorrhage	...	...	—
Other Puerperal Diseases	...	...	8
			—
			9
			—

(h) Diseases of Early Infancy ...

	...	...	131
			—
			—
			—
			108
			—

(i) Old Age

	...	...	20
			—
			1,862
			—

(j) Affections produced by External Causes.

Burns and Scalds	...	...	6
Accidents and Injuries	...	...	39
			—
			45
			—

(k) Other Causes of Death

Grand Total	...	...	1,862
			—
			—

Chart B
Port-of-Spain
Principal Individual CAUSES OF DEATHS — 1943.

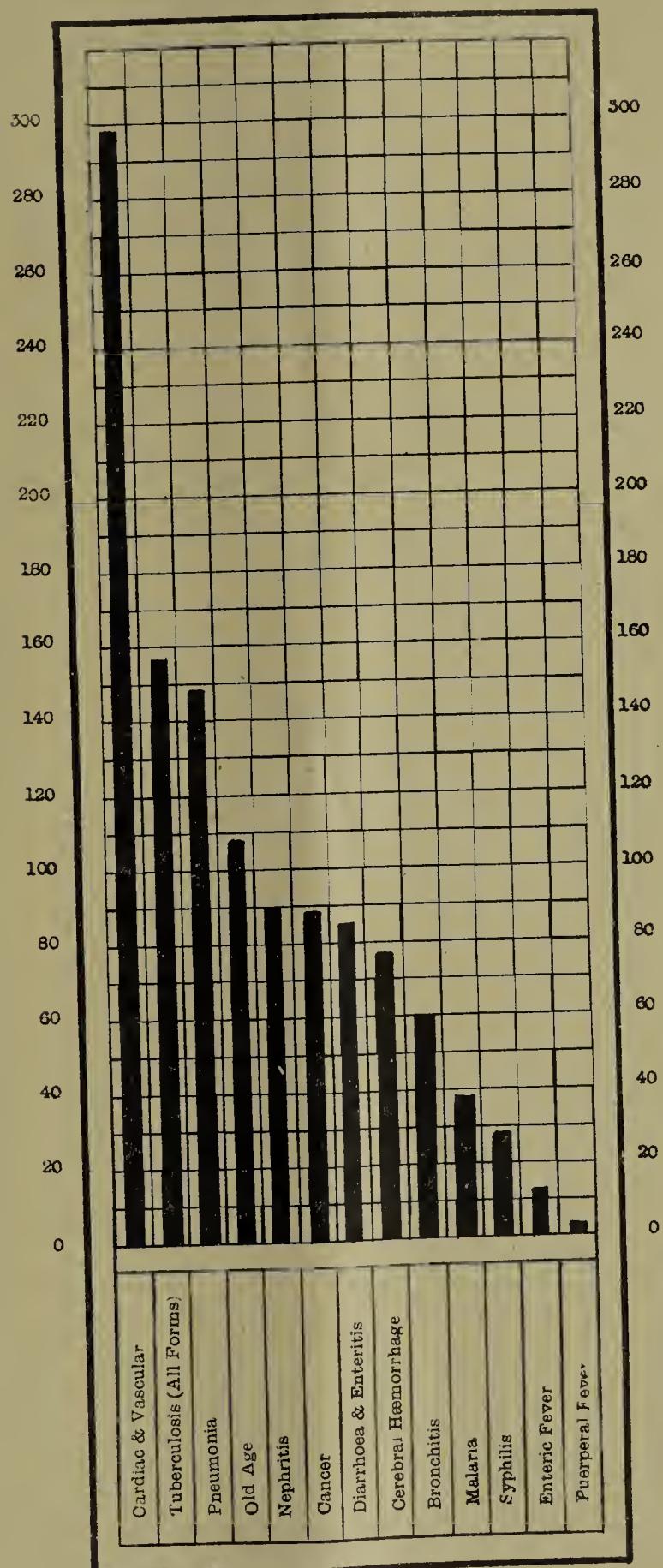
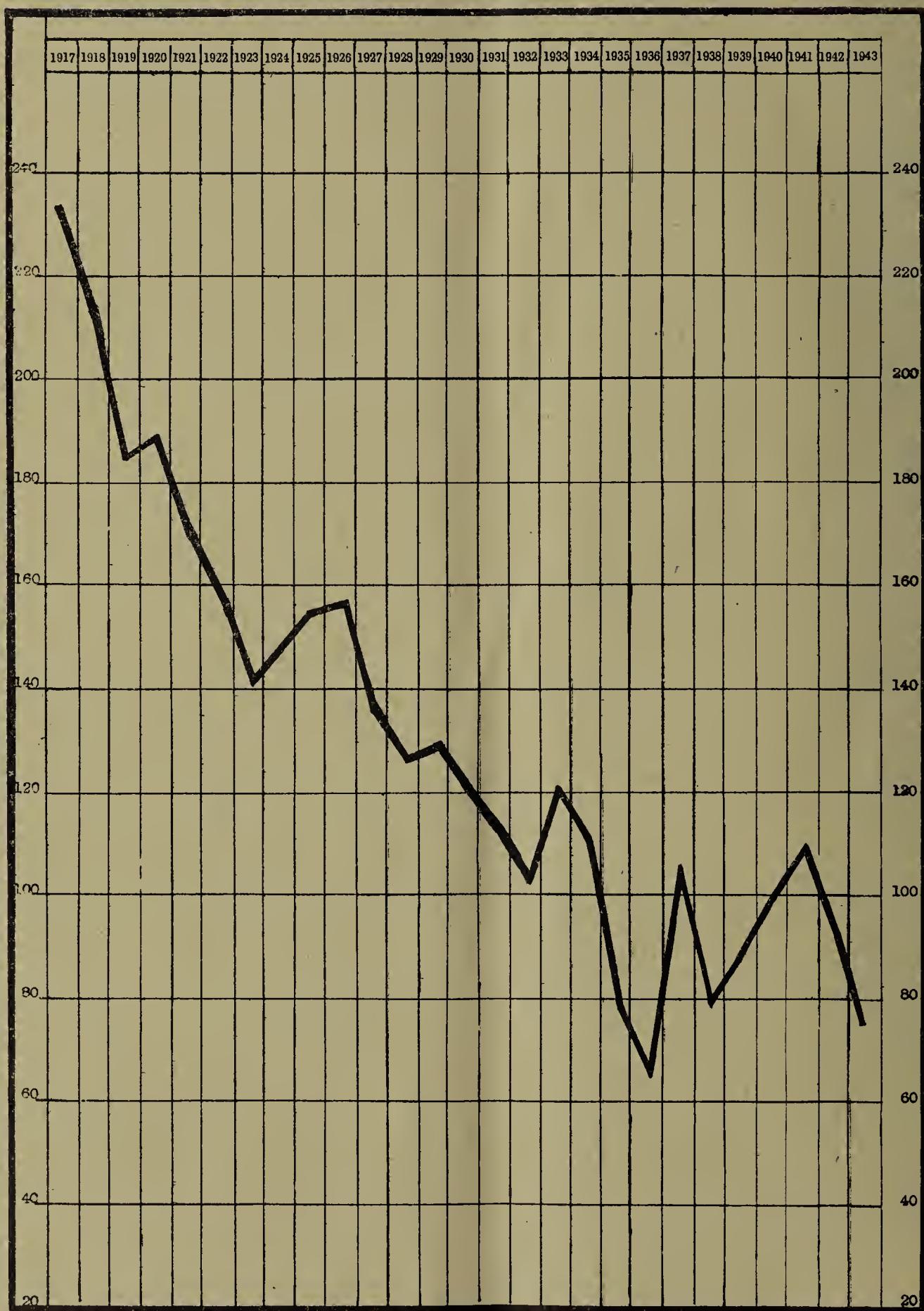


Chart C
Port-of-Spain

INFANT MORTALITY RATES—per 1,000 Live Births, 1917–1943.



INFANT MORTALITY.

In some ways the infant mortality rate is an index of the general educational level of a community, of the sufficiency and efficiency of the midwifery services, and to a lesser extent of the general level of environmental hygiene.

The rate therefore, has more than a medical significance; to a certain extent it measures advancement and progress—progress along economic, educational and hygienic lines.

Particularly important is the neo-natal mortality, *i.e.*, the mortality of infants under one month. In this group one finds those infants who are crippled by diseases of mother and father and acquire their infection at the time of conception, as well as those infants who have been affected by ante-natal and intra-natal infections and accidents.

These infants are so debilitated during ante-natal and intra-natal life that they cannot survive the first month of extra-uterine life. Here lies a field in which much fruitful work can be accomplished by the treatment of the diseases of parents before conception and by efficient ante-natal and intra-natal care and treatment. This is where adequate home and hospital care, skilled obstetrics and sufficient midwifery services can play their greatest and most effective part, and the chances of success here are more rosy than in the post-natal period where infections and accidents may defeat the best and most highly skilled care.

In the year under report 283 infants under one year died giving an Infant Mortality Rate of 75.45 per 1,000 live births. This is the second lowest figure recorded since the establishment of the Local Authority in 1917—the lowest figure being 64.12 in 1936—and it is well below the average for the five-year period 1938-1942. Of this, the neo-natal deaths accounted for 134, giving a neo-natal mortality rate of 35.72 per 1,000 live births and a percentage of 47.35 of the total infant mortality. Compare this percentage figure of 47.35 with the corresponding figures, 50.41, 45.36, 43.63, 41.62 in 1939, 1940, 1941 and 1942, and it is obvious that comparatively little progress in checking the ravages wrought by the diseases occurring in the ante-natal and intra-natal periods is being made and it is here, in this particular period of the infant's life, that the greatest effort must be expended if the infant mortality rate is to be reduced to the figure of 40 to 50 per 1,000 live births, which is the rate that obtains in the most advanced countries of temperate climes.

Infant Mortality.

Births and Deaths of Infants under 1 year, 1917-43.

	Period.				No. of Births.	No. of Deaths under 1 year.	Infant Mortality Rate.
Year 1917	1,770	412	232.77
Yearly Averages :							
1918-22	1,700	310	182.94
1923-27	1,862	274	146.96
1928-32	1,925	230	119.13
1933-37	2,248	215	96.05
Average 1918-37	1,901	288	155.57
Year 1938	2,591	204	78.73
1939	2,752	242	87.94
1940	2,937	291	99.08
1941	2,888	314	108.73
1942	3,399	322	94.73
Average 1938-42	2,913	275	93.84
Year 1943	3,751	283	75.45

Causes of Deaths under 1 year.

Causes of Deaths.	Neo-Natal Deaths under 1 month.	Deaths 1 month and under 1 year.	Total	Percentage of Total Infant Mortality.
<i>Ante-Natal Causes :</i>				
Prematurity ...	51	2	53	
Congenital Debility ...	22	11	33	
Marasmus ...	1	11	12	
Malnutrition ...	1	7	8	
Congenital Abnormalities ...	5	—	5	
Congenital Heart Disease ...	2	2	4	
Toxaemia ...	1	1	2	
Total Ante-Natal ...	83	34	117	41.34
<i>Intra-Natal Causes :</i>				
Asphyxia Neonatorum ...	6	—	6	
Cerebral Haemorrhage ...	6	—	6	
Atelectasis ...	5	—	5	
Umbilical Haemorrhage ...	1	—	1	
Nasal Haemorrhage ...	1	—	1	
Birth Shock ...	1	—	1	
Total Intra-Natal ...	20	—	20	7.07
<i>Post-Natal Causes :</i>				
Pneumonia ...	7	36	43	
Diarrhoea and Enteritis ...	3	38	41	
Bronchitis ...	3	11	14	
Icterus Neonatorum ...	9	—	9	
Pulmonary Congestion ...	2	2	4	
Malaria ...	—	4	4	
Cirrhosis of Liver ...	1	1	2	
Convulsions ...	1	1	2	
Measles ...	—	2	2	
Dysentery ...	—	2	2	
Colitis ...	—	2	2	
Dentition ...	—	2	2	
Nephritis ...	—	2	2	
Scurvy-Rickets ...	—	2	2	
Encephalitis ...	—	1	1	
Meningitis ...	—	1	1	
Tuberculosis of Spine ...	—	1	1	
Other Post-Natal Causes ...	1	7	8	
Total Post-Natal ...	27	115	142	50.18
<i>Ill-Defined Causes :</i>				
Unknown ...	4	—	4	1.41
Grand Total ...	134	149	*283	—

* M. 156; F. 127

Duration of Life of Infants dying under one year of Age.

Duration of Life.	No. of Infants.	Percentage of total deaths under 1 year.	Corresponding percentage 1942.
Under 1 day	32	11·31	6·21
1 day and under 2 weeks ...	91	32·15	29·50
2 weeks and under 1 month ...	11	3·89	5·90
Total under 1 month ...	134	47·35	41·62
1 month to 3 months ...	48	16·96	20·81
Over 3 to 5 months ...	21	7·42	10·87
Over 5 to 7 months ...	29	10·25	12·42
Over 7 to 9 months ...	29	10·25	8·07
Over 9 to 11 months ...	22	7·77	6·21
Over 11 and under 1 year ...	—	—	—
Total	283	—	—

Neo-Natal Mortality (Deaths under 1 month), 1930-43.

Period.	No. of Deaths under 1 month.	Percentage of total deaths under 1 year.	Neo-Natal Mortality Rate per 1,000 Births.
Yearly Average : 1930-34 ...	90·6	38·60	44·03
Year 1935	91	50·28	39·24
1936	61	40·94	26·58
1937	110	46·41	48·39
1938	117	57·35	45·16
1939	122	50·41	44·33
Average 1935-39	100·2	49·08	40·74
Year 1940	132	45·36	44·94
1941	137	43·63	47·44
1942	134	41·62	39·42
1943	134	47·35	35·72

Still Births.

Year.	Total Still Births.	Rate per 1,000 Live Births.
1943	230	61·32
1942	257	75·61
1941	211	73·06
1940	214	72·86
1939	190	69·04
1938	171	66·00

THE PRE-SCHOOL CHILD AGE.

The pre-school period represents a gap in the life of the child for which adequate organisation for inspection and treatment is sorely needed.

This is the time that dangerous infections are likely to attack the child and, through lack of facilities for proper inspection and treatment, are likely to leave it with a weak heart, a damaged nervous system or a gammy limb.

Many children entering school at 5 years are found to have eye, ear, nose and throat, mouth and teeth, skin and hair, lung and heart defects which could either have been obviated or successfully treated if these children had been seen by a medical man during the pre-school period.

The diseases which gave rise to the greatest mortality at this age-period in the year under review were communicable diseases and diseases of the digestive system accounting between them for 56.86 per cent. of the mortality. Diseases attributable to ante-natal causes accounted for 9 deaths out of a total of 102.

Causes of Death at Ages 1-5.

Groups.	Group Total.	Percentage of Total Mortality at Ages 1-5.
<i>Diseases, &c., Attributable to Ante-Natal Causes :</i>		
Marasmus 7, Congenital Debility 1, Malnutrition... ...	9	8.82
<i>Communicable Diseases :</i>		
Pneumonia 21, Measles 10, Diphtheria 2, Malaria 2, Pulmonary Tuberculosis 2, Tuberculous Meningitis 2, Dysentery 1 ...	40	39.22
<i>Diseases of the Nervous System :</i>		
Convulsions 4, Meningitis 2	6	5.88
<i>Diseases of the Respiratory System :</i>		
Bronchitis 8, Pulmonary Congestion 2, Asthma 1	11	10.78
<i>Diseases of the Digestive System :</i>		
Diarrhoea and Enteritis 14, Worms 2, Gastritis 1, Cirrhosis of Liver 1	18	17.65
<i>Other Causes :</i>		
Burns 4, Nephritis 2, Fever 2, Dentition 2, Leukaemia 1, Rickets 1, Anaemia 1, Fractured Skull 1, Septicaemia 1, Toxaemia 1, Mediastinal Tumour 1, Unknown 1	18	17.65
Total	* 102	—

* M. 55, F. 47.

MATERNAL MORTALITY.

The maternal mortality rate of 3.20 is lower than the corresponding rate, 3.82, for 1942 and much lower than that for 1941, 5.89 per 1,000 live births. When analysed from a point of view of causal diseases it will be seen that puerperal sepsis and haemorrhage each accounted for 3 deaths.

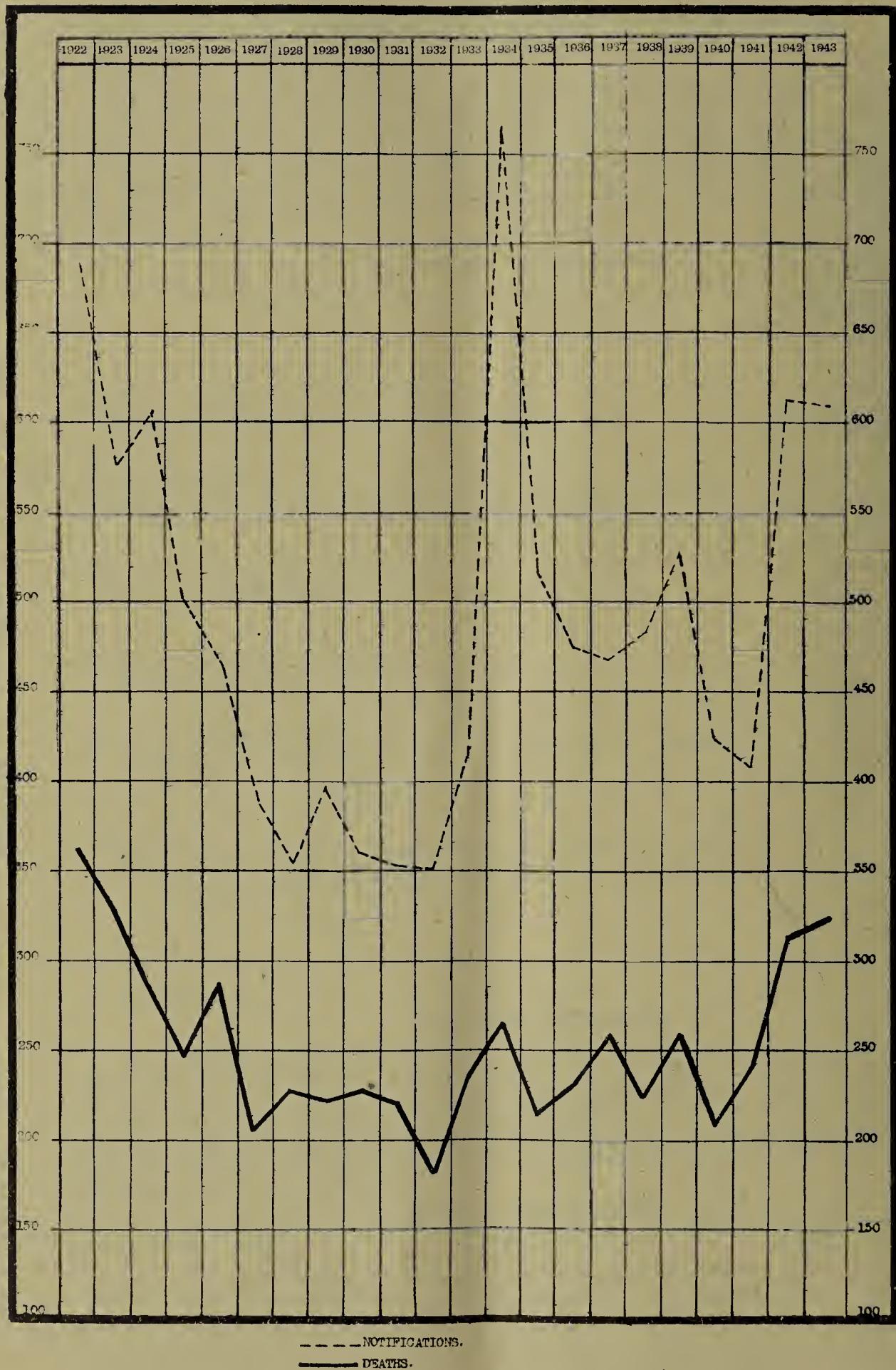
With the prompt exhibition of the sulphonamide group of drugs it might be possible to reduce still further the mortality attributable to puerperal sepsis, but it is common experience that these cases are brought to Hospital very often too late after confinement and very often attendance by an unqualified person outside.

Causes of Maternal Deaths.

Causes of Maternal Deaths.	Under 16.	16 to 25	26 to 35	36 and upwards	Total All Ages.	Rate per 1,000 Births.	
						1943	Average 1938-42
Puerperal Sepsis	—	2	—	1	3	0.80
Eclampsia	—	1	—	—	1	0.27
Haemorrhage	—	2	—	1	3	0.80
Pernicious Vomiting	...	—	—	—	—	—	0.15
*Other Causes	—	1	4	—	5	1.33
Total	—	6	4	2	12	3.20
							5.16

* "Other Causes" include Ectopic Gestation, Septic Abortion, &c.

Chart D
Port-of-Spain
INFECTIOUS DISEASES—Notifications and Deaths, 1922–1943.



PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASES.

Notifiable Infectious Diseases.

The number of notifications received at the Public Health Department during the year 1943 again exceeded the 600 mark, this being the fifth occasion during the past twenty years, but the actual figure of 611 was 3 less than the corresponding figure, 614, for 1942.

There were 81 fewer cases of pneumonia notified but this decrease was balanced by an increase of 37 notifications of chicken pox, of 25 of pulmonary tuberculosis and of 22 of diphtheria.

On the other hand, deaths attributable to notifiable infectious diseases numbered 326, 12 more than the corresponding figure, 314, for 1942, giving a mortality rate of 3.20 per 1,000 population. This mortality was made up almost entirely by 148 deaths certified to pulmonary tuberculosis and 149 certified to pneumonia.

Two hundred cases of the notifiable infectious diseases were located in the East Dry River sub-district and, correspondingly, 84 deaths from these diseases occurred in this sub-district, giving an incidence rate of 8.85 and a death rate of 3.72 per 1,000 population. Needless to say, this subdistrict, the most unhealthy in the Urban Sanitary District, with its narrow congested lots, the multiplicity of cesspits check by jowl to living rooms, its poverty and overcrowding, its narrow streets and poor drainage, furnished far and away the largest number of cases and deaths of any sub-district and a casual glance at the table hereunder listed reveals the fact that respiratory diseases, pneumonia and pulmonary tuberculosis claimed the greatest number of victims, 96 cases, 30 deaths and 53 cases, 43 deaths, respectively.

Distribution of Cases and Deaths from Notifiable Infectious Diseases.

Diseases.	City Proper		St. Clair		East Dry River		Belmont		Woodbrook		St. James	
	Cases notifi- fied.	Deaths	Cases notifi- fied.	Deaths	Cases notifi- fied.	Deaths	Cases notifi- fied.	Deaths	Cases notifi- fied.	Deaths	Cases notifi- fied.	Deaths
Diphtheria ...	18	1	—	—	7	—	9	—	5	2	1	1
Enteric Fever ...	8	3	—	—	14	5	7	3	1	—	8	1
Pulmonary Tuberculosis ...	62	51	—	—	53	43	30	31	14	7	23	16
Tuberculosis (Other forms) ...	3	1	—	—	5	4	4	2	2	—	1	2
Pneumonia (All forms) ...	70	46	1	2	96	30	50	28	10	11	24	32
Ophthalmia Neonatorum ...	5	—	—	—	4	—	6	—	—	—	—	—
Chicken Pox ...	16	—	6	—	13	—	11	—	3	—	1	—
Cerebro-Spinal Fever ...	2	1	—	—	—	—	—	—	—	—	—	—
Puerperal Fever ...	3	—	—	—	8	2	3	—	1	—	3	1
Total ...	187	103	7	2	200	84	120	64	36	20	61	53
Rate per 1,000 population in each sub-district	5.34	2.94	4.10	1.17	8.85	3.72	6.99	3.73	2.78	1.55	5.10	4.43

Infectious Diseases—Notifications and Deaths—1933 to 1943.

Infectious Diseases.	NOTIFICATIONS.				DEATHS			
	Average 1933-37.	Average 1938-42.	1942.	1943.	Average 1933-37.	Average 1938-42.	1942.	1943.
Diphtheria ...	23.6	32.4	18	40	3.	2.4	3	4
Enteric Fever ...	53.6	59.4	37	38	13.4	13.6	12	12
Pulmonary Tuberculosis ...	147.6	146.8	157	182	124.8	134.6	136	148
Tuberculosis (Other forms) ...	13.8	7.2	5	15	12.6	9.4	4	9
Pneumonia (All forms) ...	165.2	149.4	332	251	86.6	86.4	152	149
Ophthalmia Neonatorum ...	30.4	22.6	13	15	—	—	—	—
Chicken Pox ...	89.8	61.	13	50	—	—	—	—
Encephalitis Lethargica ...	0.2	—	—	—	0.2	1	—	—
Acute Anterior Poliomyelitis ...	2.2	8.8	26	—	0.2	1.4	3	—
Puerperal Fever ...	—	3.4	13	18	—	1.8	3	3
Cerebro-Spinal Fever ...	—	—	—	2	—	—	—	1
Total ...	526.4	491.	614	611	240.6	249.8	314	326
Rate per 1,000 population ...	7.10	4.94	6.20	6.00	3.23	2.69	3.17	3.20

Notifiable Infectious Diseases—Home and Hospital Deaths.

Diseases.	Died at Home.	Died at Hospital.	Total Deaths.	Percentage of cases isolated in Hospital before death.	Corresponding percentage for the year 1942.
Diphtheria ...	1	3	4	75.00	100.00
Enteric Fever ...	1	11	12	91.67	75.00
Pulmonary Tuberculosis ...	70	78	148	52.70	56.62
Tuberculosis (Other forms) ...	2	7	9	77.78	75.00
Pneumonia (All forms) ...	95	54	149	36.24	38.16
Puerperal Fever ...	—	3	3	100.00	100.00
Cerebro-Spinal Fever ...	—	1	1	100.00	—
Total ...	169	157	326	48.16	48.73

TUBERCULOSIS.

Pulmonary Tuberculosis.

Whenever one is forced to write on the subject of pulmonary tuberculosis, one is seized with a feeling of hopelessness and even frustration which is not quite easy to understand but is not altogether unjustified. For year after year the horizon looks clearer, prospects seem a little brighter and the auspices better and yet, as the end of the year rolls in sight, the realization is only too obvious that nothing really has been accomplished and no forward step taken.

The sufferers from this dread scourge are indeed in a pitiable plight, for what really are we doing for them? I ask this more in sorrow than in anger for I do happen to know that great things are in the offing: Dr. Santon Gilmour has, I know, completed his survey and is preparing his report; as a matter of fact he has issued an interim report setting out certain facts which were fairly well known—I do no injustice to him when I say this—, Mr. Gray the Architect is back from England with the plans for the sanatorium-hospital all ready, and at the moment tenders are being invited for its erection but, in spite of all this, nothing concrete has yet emerged and the position in the year under report was substantially the same as detailed in previous reports. The routine measures of notification, the isolation in hospital of dangerously infected cases, the ferreting out of contacts and suspects by Sanitary Inspectors, their examination and, where necessary, treatment at the Tuberculosis Dispensary, the disinfection of premises and fomites and the insistence by the Local Authority that cases leaving hospital are removed to places and premises suitable for the purpose, continued unabated, but I need hardly say they just touch the fringe of the problem.

The number of cases notified in the year under review was 182, the highest since 1923, and the deaths 148, the highest since 1939, giving a death rate of 1.45 per 1,000 population. This death rate is the highest recorded since the outbreak of hostilities and may fairly be related to the over-crowding, the intermittent shortage of essential foodstuffs and the inadequate and very often insanitary housing accommodation which prevailed in the year under report.

Pulmonary Tuberculosis—Notifications and Deaths, 1918-43.

Period.	Notifications.	Deaths.	Death Rate per 1,000 pop.
Year 1918 ...	299	233	3.43
Yearly Averages :			
1919-23 ...	207	173.2	2.65
1924-28 ...	167.6	154.6	2.38
1929-33 ...	133.6	129.	1.85
1934-38 ...	147.4	124.6	1.62
Average 1919-38 ...	163.9	145.4	2.13
Year 1939...	175	167	1.85
1940...	155	118	1.28
1941...	113	124	1.27
1942...	157	136	1.37
1943...	182	148	1.45

Non-Pulmonary Tuberculosis—Forms, Notifications and Deaths.

Forms.	Notifications.	Deaths.
Tuberculous Adenitis ...	3	1
Tuberculous of Spine ...	1	1
Tuberculous Meningitis ...	3	2
Tuberculous Enteritis ...	—	1
Miliary Tuberculosis...	2	4
Tuberculous Pleurisy ...	6	—
Total ...	15	9

Chart E
Port-of-Spain

PULMONARY TUBERCULOSIS—Notifications and Deaths, 1918—1943.

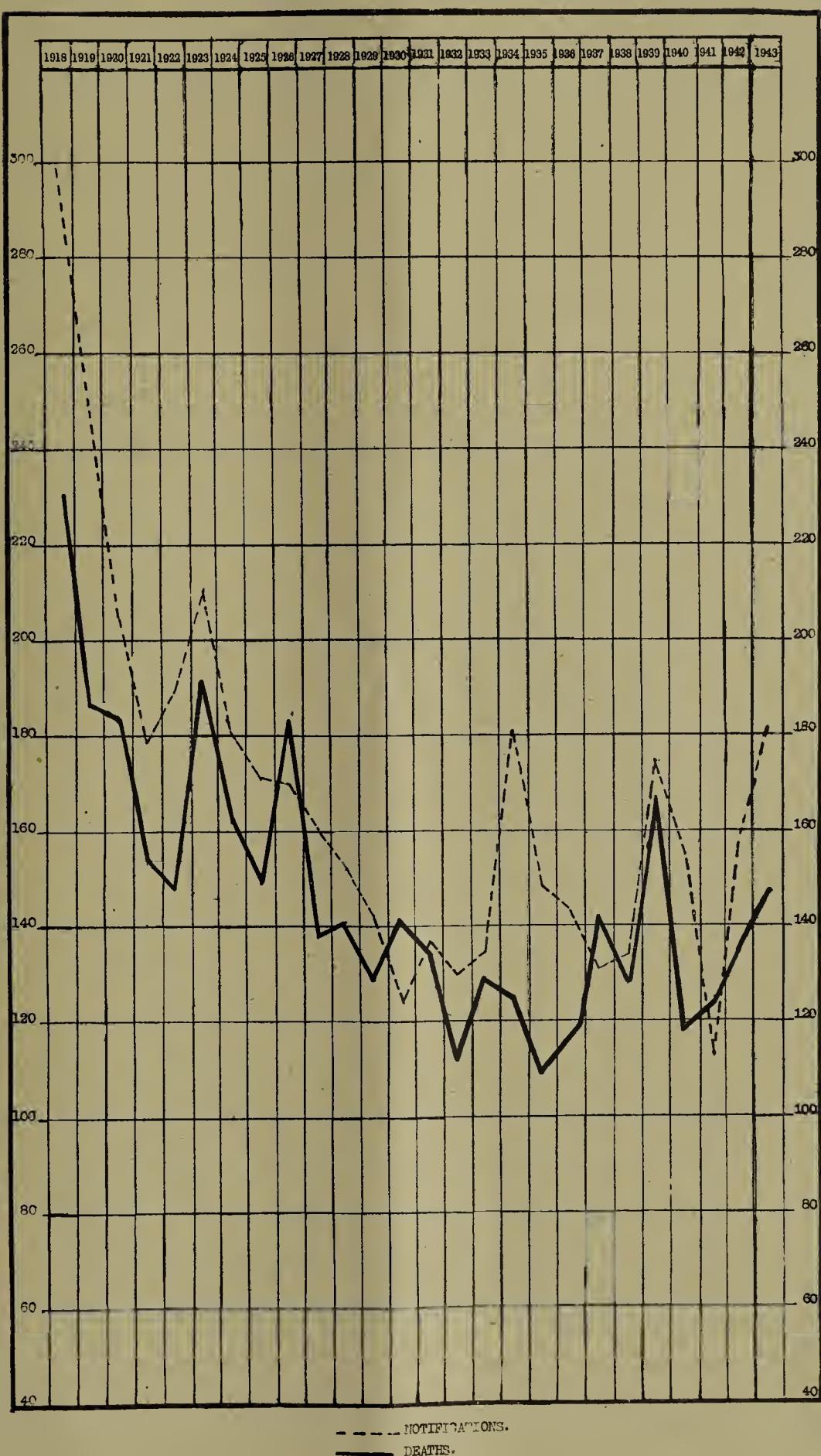
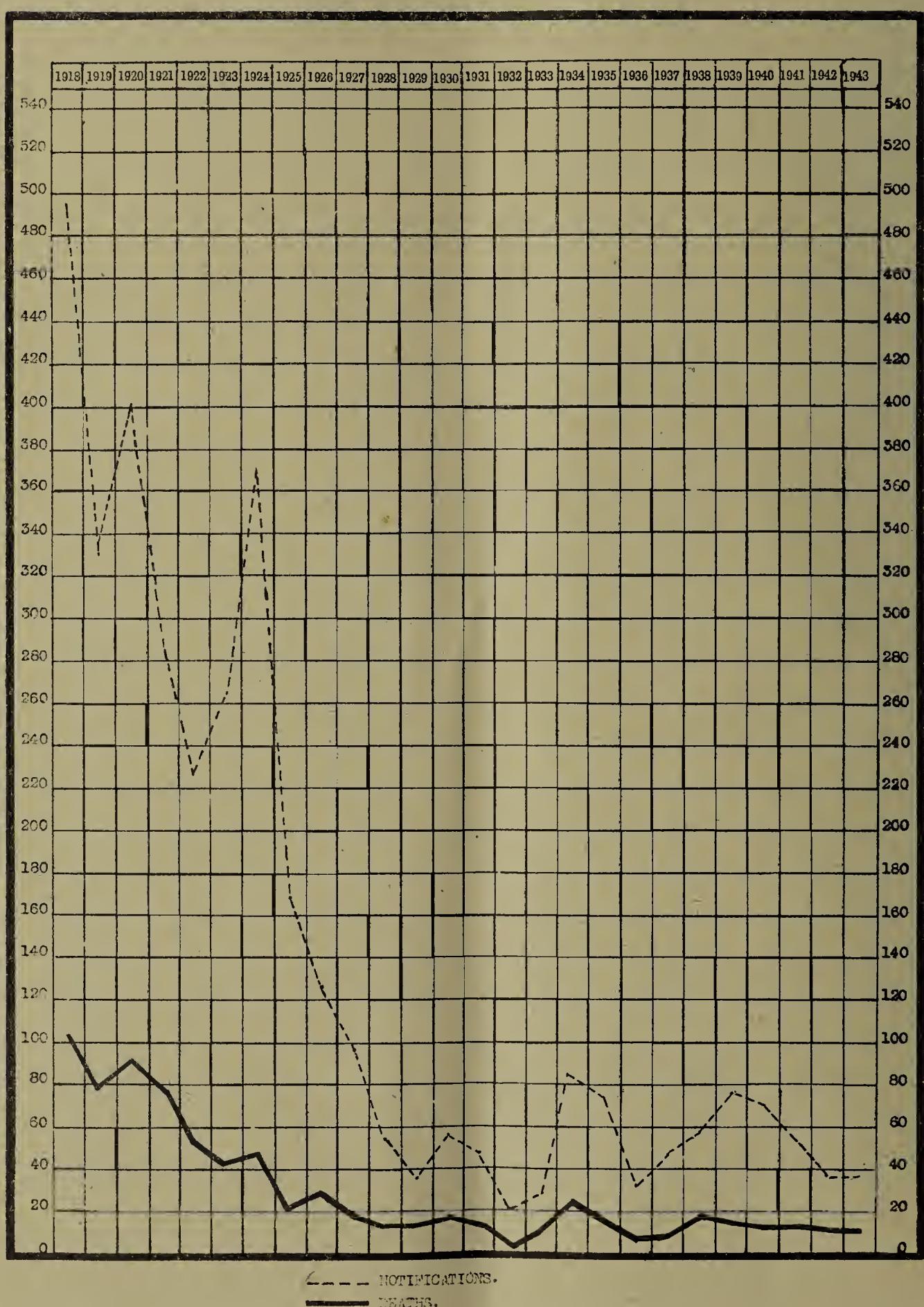


Chart F
Port-of-Spain

Enteric Fever—Notifications and Deaths, 1918-43.



Deaths from Non-Pulmonary Tuberculosis 1924-43.

Period.	Deaths.	Rate per 1,000 population.
Yearly Averages :		
1924-28	15	0.23
1929-33	15.2	0.22
1934-38	10	0.13
Average 1924-38	13.4	0.19
Year 1939	15	0.17
1940	14	0.15
1941	6	0.06
1942	4	0.04
1943	9	0.09

ENTERIC FEVER.

The number of cases of typhoid fever occurring in the Urban Sanitary District has shown a very welcome decline during the last two years and this, in spite of the difficult times through which we have been passing in so far as foodstuffs, their quantity, their quality, the possibility of contamination by dirt, dust and flies, the inability to insist on measures previously demanded for their protection, &c., &c., are concerned.

Seeing that typhoid fever is usually regarded as a very sensitive index of the general sanitary condition of a community and of the efficacy of measures designed to prevent infected faeces from reaching the food and drink of man, it is gratifying to know that the disease has quite definitely assumed a downward trend but, as I have stated previously, the mortality rate is still far too high, being about ten to fifteen times as high as that obtaining in big modern cities of tropical and temperate climes. This points to intensified efforts in the campaign to secure good, clean and wholesome food, free from contamination, and adequately protected from the usual vehicles by which typhoid fever is transmitted, efforts which must include measures directed to the detection of the chronic carrier and to the elimination of pathogenic bacilli from his excreta. It is my opinion that there are few, if any, cases of typhoid fever occurring within the limits of the City which have a water-borne origin.

Whenever a case of typhoid fever is notified to the Public Health Department, a very close and minute investigation is undertaken with a view to detecting the source and place of origin of the case, the means whereby the infection was acquired, the vehicle of transmission and the immediate and remote contacts, and there is immediately set on foot the standard routine measures of proper isolation of the case, the disinfection of premises and fomites, the oiling of cesspits in the vicinity and the inoculation of contacts, &c.

Enteric Fever.
Notifications and Deaths, 1918-1943.

Period.	Notifications.	Deaths.	Death Rates per 1,000 population.
Year 1918	495	104	1.52
Yearly Averages :			
1919-23	301.8	67.8	1.03
1924-28	162.4	25.2	0.39
1929-33	37	10.8	0.16
1934-38	59.8	14.6	0.19
Average 1919-38	140.3	29.6	0.44
Year 1939	75	15	0.17
1940	70	11	0.12
1941	56	14	0.14
1942	37	12	0.12
1943	38	12	0.12

Inoculation of Enteric Fever Contacts.
T.A.B. Injections.

No. receiving one injection.	No. receiving two injections.	Total.
17	6	23

PNEUMONIA.

Two hundred and fifty-one notifications of and 149 deaths due to pneumonia were recorded at the Public Health Department in 1943, giving a death rate of 1.46 per 1,000 attributable to pneumonia. This rate was practically the same as that for the previous year 1942, though the incidence rate, as judged by the number of cases notified, was much lower, 251 cases as against 332; these latter figures, however, cannot be considered reliable in view of the well known fact that the number of cases reported falls well below the actual number occurring. As in the case of tuberculosis, it is very likely that overcrowding, bad housing conditions, poor ventilation and a relative shortage of the sulphonamide group of drugs had an adverse effect on the mortality attributable to this disease.

Pneumonia (All Forms).**Notifications and Deaths, 1922-43.**

Period.				Notifications.	Deaths.	Death Rate per 1,000 population.
Yearly Averages :						
1922-26	...	...	...	111.8	78	1.23
1927-31	...	...	...	69.8	53.4	0.79
1932-36	...	...	...	155.4	80.6	1.10
Average 1922-36	...	...	...	112.3	70.7	1.04
 Year						
1937	...	...	...	125	85	1.10
1938	...	...	...	101	70	0.83
1939	...	...	...	107	59	0.65
1940	...	...	...	69	63	0.68
1941	...	...	...	138	88	0.90
Average 1937-41	...	...	...	108	73	0.83
Year	1942	...	...	332	152	1.53
	1943	...	...	251	149	1.46

Diphtheria and Chicken Pox.

An increased number of notifications, 40 and 50, as compared with the previous years, 18 and 13, respectively, were received though there was no substantial change in the death-rate.

Diphtheria.**Notifications and Deaths, 1917-43.**

Period.				Notifications.	Deaths.	Death Rate per 1,000 population.
Yearly Averages :						
1917-21	...	...	...	11.8	1.4	0.02
1922-26	...	...	...	14.8	2	0.03
1927-31	...	...	...	23.8	1.6	0.02
1932-36	...	...	...	29.8	2.2	0.03
Average 1917-36	...	...	...	20	1.8	0.03
 Year						
1937	...	...	...	30	4	0.05
1938	...	...	...	16	3	0.04
1939	...	...	...	61	2	0.02
1940	...	...	...	37	2	0.02
1941	...	...	...	30	2	0.02
Average 1937-41	...	...	...	34.8	2.6	0.03
Year	1942	...	...	18	3	0.03
	1943	...	...	40	4	0.04

Chicken Pox—Notifications, 1924-43.

Period.	Notifications.	Period.	Notifications.		
 Yearly Averages :					
1924-28	...	19.8	Year 1939...	...	72
1929-33	...	41	1940...	...	58
1934-38	...	110.4	1941...	...	20
			1942...	...	13
			1943...	...	50

Other Notifiable Infectious Diseases.

No case of Acute Anterior Poliomyelitis or Encephalitis Lethargica, or Paralytic Rabies was notified to the Department in the year under report and none of the Dangerous Infectious Diseases: Plague, Yellow Fever, Typhus Fever, Cholera, Small Pox or Alastrim, was reported as having occurred in the Colony.

Acute Anterior Poliomyelitis.

Notifications and Deaths, 1927-43.

Year.	No. of Cases.	Deaths.	Year.	No. of Cases.	Deaths.	Year.	No. of Cases.	Deaths.
1927-29	...	—	1933-35	...	—	1939	...	1
1930	...	5	1936	...	3	1940	...	—
1931	...	—	1937	...	10	1941	...	15
1932	...	3	1938	...	2	1942	...	26
						1943	...	—

Non-Notifiable Infectious Diseases.

No accurate information as to the prevalence of these diseases in the Urban Sanitary District is possible because of the fact that these diseases are not compulsorily notifiable but they are, nevertheless, of very great importance in that among their number are listed infectious diseases which may, in a comparatively short time, exert a profound influence on the public health, e.g., Influenza, Measles, Whooping Cough, and also others which have a chronic effect and may be responsible for much invalidism and a high mortality, besides affecting the general health of the residents of the City in a very adverse way, e.g., Malaria, Syphilis.

The outstanding features under this heading in the year under report are the number of deaths (15) certified to measles, a very severe outbreak of which disease was reported by numerous practitioners, and the organised effort which is now taking shape to eradicate malaria and venereal diseases to which I shall make further reference a little later on.

Non-Notifiable Infectious Diseases—Home and Hospital Deaths.

Diseases.	Died at Home &c.	Died at Hospital.	Total Deaths.	Percentage of cases isolated in Hospital before death.	Corresponding percentage for the year 1942.
Malaria	23	15	38
Black Water Fever	—	—	—
Whooping Cough	—	—	—
Influenza	2	—	2
Dysentery	5	1	6
Ankylostomiasis	3	—	3
Syphilis	24	5	29
Measles	13	2	15
Total	70	23	93
				24.73	27.59

MALARIA.

I am happy to be able to record that a great step forward has been taken by the appointment of a full time malariologist for the Colony, a post which, since the appointment of the former malariologist to the post of Senior Medical Officer of Health (North), had been left in abeyance. Definite programmes for the eradication of this debilitating disease which has so great an influence on the public health have been mapped out with the help and guidance of Dr. R. Shannon of the Rockefeller Foundation and are already being put into practice.

What influence this course is likely to have on the City is obvious when I remind my readers of what has so often been said before, that Malaria within the limits of the Urban Sanitary District is a minor problem which is created almost entirely by the highly malarious areas in the immediately adjoining districts which surround the eastern and western boundaries particularly.

Already joint efforts by Government and ourselves have been undertaken in instituting and maintaining temporary measures of clearing, oiling and, in some cases, of filling drains and pools in the Cocorite Estate of the Corporation, a very prolific breeding ground of malaria-carrying anopheline mosquitoes, and plans are being made for the complete eradication of these breeding places by permanent major works of drainage and swamp reclamation.

I have no doubt that soon the areas on the eastern outskirts of our City will be tackled—in fact, as I write, the Laventille Swamp is being reclaimed and soon other areas further north and east will be dealt with *scundum artem*.

The malaria position within the City remains as has been detailed in previous reports—a problem created by those infected in outside areas finding their way to the City for treatment and convalescence.

The routine measures of constant oiling, trimming of grassy edges, filling in of swampy areas, &c., which are being constantly applied year in and year out and which have borne such rich fruit in making the City unfavourable to the breeding of anopheline mosquitoes, as testified to by several authorities to whom I have made reference in previous annual reports, continue to be our sheet anchor in dealing with the problem.

Soon, however, more permanent means of dealing with the Maraval River will have to be sought and already we have had at least one conference with Government on the question of the paving of that river, a project which, though costly, will be of inestimable benefit in safeguarding the public health of the City.

Malaria—Local Distribution of Deaths.

	Sub-districts.							Deaths.
City Proper	11
St. Clair	—
East Dry River	14
Belmont	8
Woodbrook	3
St. James	2
Total	38

SYPHILIS.

If the auspices as regards malaria are favourable, they certainly are much more favourable, at the moment I write, as far as the eradication of syphilis and of venereal diseases in general are concerned.

And here let me pay a tribute to Colonel O. C. Wenger, that indefatigable worker, that “aggressive syphilis fighter” as Kahn describes him, whom we are fortunate to have in our midst and who is the pivot around which the Venereal Disease Campaign revolves. Refreshing, indeed, it is to have such a man among us not only for the campaign which he is about to initiate—in fact which he has already initiated—but for the sake of the man himself, for the example which the perennially young mind of this energetic individual sets to those of us who may be inclined to grow somnolent in the heat and burden of the day. Certainly, the manner in which Colonel Wenger sets about his schemes and the results he achieves are an eye opener to public health workers who are faced with problems which seem on the surface insuperable.

I need hardly say that the core of the problem in syphilis and gonorrhoea consists in the detection of the source of infection, its eradication and the prevention of possible re-infection by re-education and rehabilitation and, as an essential step towards this desideratum, the institution of measures, legal or otherwise, designed to facilitate detection and to secure continuous treatment until a clinical and serological cure is established. Serious consideration, I know, is being given at the moment to this particular aspect of the problem.

I need hardly say that the Local Authority is willing to cooperate fully in all measures which may be agreed upon to deal with this aspect of the problem.

From the point of view of essential facts there was no substantial difference, in the year under report, from those detailed in previous annual reports. As far as deaths are concerned—and it is deaths only that are recorded at the Public Health Department—a critical analysis shows that it is the delicate tissues of the heart and the central nervous system that suffer most, a fact which is in accord with the data obtained from large cities abroad, and I repeat again that inadequate and insufficient treatment in the early stages are very likely responsible for the heavy toll taken in the later stages on the heart, blood vessels and central nervous system.

Deaths from Syphilis—1918-43.

Period.		Deaths.	Rate per 1,000 population.
Yearly Averages :			
1918-22	...	16.2	0.24
1923-27	...	56.8	0.88
1928-32	...	28.2	0.41
1933-37	...	21.8	0.29
Average 1918-37	...	24.6	0.37
Year			
1938	...	29	0.34
1939	...	26	0.29
1940	...	35	0.38
1941	...	19	0.19
1942	...	14	0.14
1943	...	29	0.28

Dysentery, Diarrhoea and Enteritis.

If only more accurate and precise information were available as regards the exact aetiology of the diseases classified under this heading, it would be possible to place the numerous cases of so-called dysentery and diarrhoea and enteritis in their correct categories but, as things are, they constitute a mixed bag exhibiting the common feature of looseness of the bowels with the passage, in some cases, of blood and mucus.

Some of these are true dysenteries, others are cases of tuberculosis of the bowels, of cancer, of cirrhosis of the liver, &c., and others again are cases of food poisoning, and corresponding with this varied aetiology is the fact that the age incidence also varies considerably, many cases occurring in infants and a goodly number in the aged.

Preventive measures are, therefore, not easy of application especially when it is remembered that the information that reaches us is mainly through the agency of death returns but as there can be little doubt that the contamination of foodstuffs, particularly those eaten raw or partially cooked like green vegetables, fruits, milk, ice cream, made-up dishes, &c., with infected human excrement, plays an important part, intensive measures to secure good clean and wholesome food free from contamination by dirt, dust and flies must, of necessity, be among the very first to be undertaken. In a sense these diseases are among those associated with dirt, squalor, overcrowding and poor nutrition, and, as can be confidently predicted, the East Dry River District furnished, as it has always done, the largest number of these cases to be bracketed, in the year under report, equal with the St. James Sub-District as far as actual figures are concerned.

Deaths from the Dysenteries, 1918-43.

	Period.	Deaths.	Death Rates.
Year 1918	43	0.63
Yearly Averages :			
1919-23	38.2	0.58
1924-28	32	0.49
1929-33	14.8	0.21
1934-38	5.4	0.07
Average 1919-38	22.6	0.34
Year 1939	2	0.02
1940	9	0.10
1941	11	0.11
1942	9	0.09
1943	6	0.06

DIARRHOEA AND ENTERITIS.

Deaths from Diarrhoea and Enteritis, 1918-43.

	Period.	Deaths.	Death Rates.
Year 1918	193	2.84
Yearly Averages :			
1919-23	143.6	2.18
1924-28	72.8	1.12
1929-33	52.8	0.76
1934-38	40	0.52
Average 1919-38	77.3	1.15
Year 1939	45	0.50
1940	73	0.79
1941	104	1.07
1942	83	0.84
1943	87	0.85

Diarrhoea and Enteritis—Deaths in Sub-districts.

	Sub-district.	No. of deaths.
City Proper	11
St. Clair	30
East Dry River	13
Belmont	3
Woodbrook	30
St. James	
Total	87

OTHER PRINCIPAL CAUSES OF DEATHS.

Cardiac and Vascular Diseases.

Second only to the large group of notifiable infectious diseases in the list of causes of death is the mortality caused by diseases of the heart and vascular system. In every annual report the same state of affairs is reported; viz.: that these diseases are exacting a heavier and heavier toll of human life, that more and more these delicate tissues are breaking down under the stress and strain of chronic system disease which has only partially been treated or treated not at all. To be reminded of the fact that these diseases are exhibiting the same feature in all the large cities of the civilized world, tropical as well as temperate, offers no consolation and certainly leads nowhere, the cause of every case of heart disease must be sedulously sought and thoroughly eradicated by appropriate treatment if this rising curve of mortality is to be checked.

Critical analysis of the specific pathological conditions listed below points to syphilis as the basic underlying cause in a large number of these cases and thorough, efficient, and continuous treatment of syphilis in its early stages would certainly go a long way in preventing the disease from spreading to the delicate tissues of the heart and blood vessels.

The statement hereunder tabulated shows that the highest mortality from these diseases occurred in the over 60 age-group; as can be readily deduced.

Deaths from Cardiac and Vascular Diseases in Age-Groups.

Forms.	0-20 years.	21-40 years.	41-60 years.	Over 60 years.	Total.
<i>Diseases of Arteries and Valves :</i>					
Aneurism	6	7	4	17
Arterio-Sclerosis and Atheroma	...	1	1	44	46
Coronary Thrombosis	2	7	9
Mitral and Aortic Incompetence	...	3	8	16	27
Other Diseases of Arteries and Valves	2	7	11	28	48
<i>Diseases of the Heart :</i>					
Auricular Fibrillation	2	1	3
Fatty Degeneration	1	1
Endocarditis	2	1	1	4
Myocarditis	2	9	27	54
Myocardial Degeneration	...	1	4	10	44
Angina Pectoris	2	...	2
Other Cardiac Diseases	...	5	6	13	44
Total	...	12	37	72	178
					299

Cancer and Other Malignant Diseases.

Every year more and more people in this City die from cancer and other malignant diseases. There has been, without exception, a steady increase in the mortality attributable to these diseases ever since the establishment of the Local Authority in 1917 enabled accurate statistics to be compiled.

When asked the question what is being done about it, there comes the unpleasant answer: hardly anything. True it is that without accurate knowledge as to the cause of a disease very little in the way of preventive measures can be done, but certainly much more propaganda is necessary to enable the public to benefit by the few facts known about cancer, e.g., the possibility of eradication by surgery in the early stages, the part that radium plays in the arresting of the disease, the importance of seeking medical aid in the early stages of any doubtful lump or tumour anywhere on the body, the possibility of an innocent ulcer becoming malignant, &c., &c.

Such a campaign is overdue and now that the general public is becoming health conscious and is being educated in the evils of syphilis, tuberculosis, malaria, &c., opportunity should be taken to start a drive against the ravages of cancer.

Cancer and Other Malignant Diseases—Forms, Sites and Deaths.

Forms and Sites.	DEATHS.		
	Males.	Females.	
<i>Carcinoma :</i>			
Face, Nose, Maxilla ...	2	2	
Larynx, Lung ...	2	...	
Thyroid Gland ...	...	1	
Oesophagus, Stomach, Liver, Pancreas, Small and Large Intestines, Rectum ...	22	21	
Breast, Uterus ...	...	23	
Penis, Urinary Bladder ...	4	...	
Site not stated ...	...	4	
<i>Undefined Malignant Neoplasms :</i>			
Pleura ...	1	...	
Spine ...	...	1	
Ovaries and Uterus ...	...	2	
Prostate Gland ...	2	...	
Rectum ...	...	1	
Total ...	33	55	

Deaths from Cancer and other Malignant Diseases, 1918-43.

Period.	Deaths.	Rate per 1,000 pop.
<i>Yearly Averages :</i>		
1918-22 ...	44.4	0.67
1923-27 ...	45.6	0.71
1928-32 ...	44.6	0.65
1933-37 ...	56.8	0.76
Average 1918-37 ...	47.9	0.70
<i>Year 1938</i>		
1938 ...	70	0.83
1939 ...	76	0.84
1940 ...	78	0.85
1941 ...	69	0.71
1942 ...	84	0.85
1943 ...	88	0.86

SANITARY ADMINISTRATION.

Staff.

The staff of the Public Health Department comprised 114 workers in the year under review, 26 of whom were on the permanent, pensionable staff, and 88 on the temporary, non-pensionable staff. Though the word temporary is used conveniently, nearly one half of these men have given long and consistent service and have passed the ten-year gratuity limit.

All these employees, with the exception of the Chief Clerk, two and occasionally three Sanitary Inspectors, one clerical assistant, one messenger, sometimes two, who comprise the indoor office staff, are engaged in field work in the various sub-districts of the Urban Sanitary District.

Thirteen (13) Sanitary Inspectors work, one each, in the thirteen sanitary districts into which the City is divided; one Sanitary Inspector is in charge of anti-bat and water sampling work and also does district work either as locum for Inspectors who may be on holiday or as helper in a district which is on the large side; another does the investigation of the infectious diseases notified to the Department and is responsible for all preventive measures directed towards checking the spread of these diseases, e.g., disinfection of premises, oiling of cesspits, bringing in contacts for inoculation, &c. in addition, disinfection of theatres, common lodging houses, hostels, &c., is under his care—in fact he is in charge of all disinfection work, another devotes his entire attention to premises and people concerned with the preparation and sale of food to the public and is known as the Food Inspector; and yet another works almost exclusively on Building Notices, Plans and Completion Certificates, the preparation of diagrams, charts, &c.

The Anti-Mosquito Unit consisting of seven (7) drivers 8 "specials" or "tin" men and 19 men divided into 7 gangs is under the control of the Mosquito Inspector who maps out, records and supervises their work.

Similarly, the anti-Rat unit consisting of 8 drivers and 30 men divided into 7 gangs is under the control of the Anti-Rat Overseer.

When actually doing field work individual gangs come under the direct supervision and control of the Sanitary Inspector of the District in which they happen to be working. In this way the Sanitary Inspector of the District is made responsible for all sanitary measures in his district and on him redounds the credit or blame for the hygiene of the district to which he is assigned.

The Anti-Bat unit comprises one driver, and six men under the direction and control of the Anti-Rabies Inspector.

Similarly, the Sanitary Inspector in charge of Infectious Diseases supervises, directs and controls the Disinfection Unit of one driver and 8 men.

Disinfection.

Premises, etc., disinfected for Infectious Diseases and Vermin.

Diseases.					Premises sprayed.	Vehicles sprayed.
Pneumonia ...	...	...	...	...	209	...
Tuberculosis	...	...	...	...	153	...
Enteric Fever	...	...	...	...	33	...
Poliomyelitis	...	...	...	...	...	...
Diphtheria ...	...	...	...	...	32	...
Puerperal Fever	...	...	...	...	16	...
Ophthalmia Neonatorum	...	...	...	...	9	...
Chicken Pox	...	...	...	...	42	...
Cerebro-Spinal Fever...	...	...	...	...	2	...
Total	...	...	...	...	496	...
Vermin	...	...	...	...	360	...

6,224 Cesspits were sprayed with a mixture of crude and distillate oils (free of charge) as a routine measure of prevention against spread of the bowel-filth diseases.

Inspection of Premises, &c., by Sanitary Inspectors.

Average Monthly No. of Visits to Dwellings, Shops and other Premises	...	6,588
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Inspection of Stores, Shops, &c.

	<i>Average Monthly No. of Visits.</i>		<i>Average Monthly No. of Visits.</i>
Provision and Meat Shops	198	Sweet Drink Carts	17
Provision Stores	46	Dairies and Cowsheds	62
Restaurants and Cookshops	99	Stables	49
Bakehouses	50	Goat Pens	74
Bread Depots	9	Aerated Water Factories	15
Cake and Ice Cream Shops	242	Soap Factories	3
Fry Shops	8	Other Factories	25
Hotels	8	Schools	25
Markets	30	Common Lodging Houses	10
Spirit Shops	30	Barber Shops	28
Ice Cream Carts and Pails	34	Dyeworks	2
Cake Trays and Baskets	17	Laundries	23
Provision Trays and Baskets	39	Garages	23
Bread Carts and Baskets	18	Tanneries	6
Fresh Fish Trays	12	Public Urinals	10
Oyster Vendors' Baskets	2	Boats	28
Plantain Carts	2		

Results of Notices and Verbal Directions.

	Constructed, installed or provided	Repaired	Cleansed	Painted	Elim- inated	Lime- washed	Oiled
Yard pavements...	38	125	...	...	...	...	...
Depressions in yards	...	...	...	...	164	...	...
Yards ...	...	...	3,083	...	...	...	...
Drains, sinks, gullies, washing troughs, &c.	252	327	4,436	...	...	...	...
Lavatories, sewer basins, flushtanks urinals, bath rooms, &c.	121	65	1,439	...	...	4	...
Privies	181	561	...	...	...	495	...
Cesspits	303	171	1,082	...	...	...	503
Manure Heaps	...	...	...	...	271	...	...
Rat Holes	...	...	...	...	50	...	...
Tree Shade, Overgrowths of bush	...	...	...	...	747	...	...
Dustbins	1,197	157	689	...	...	...	...
Dustbin covers	330	...	...	...	...	...	...
Shops, Parlours, Restaurants, Bakehouses, Hotels, &c.	...	102	2,819	232	...	305	...
Aerated Water Factories	...	...	165	...	...	41	...
Bread Carts	...	...	...	18	...	...	...
Barracks, Common Lodging Houses	...	61	42	22	...	100	...
Garages, Kitchens	...	58	...	...	...	90	...
Cowsheds, Stables	...	54	176	...	...	52	...
Tanneries, Soap Factories, &c.	...	...	...	...	...	6	...
Close-boarding, Ventilation of Houses	26	...	...	...	...	...	...
Barber Shops and other Workshops	...	...	42	9	...	...	...
Schools...	...	...	5	1	...	...	...

Reports to Water and Sewerage Department.

<i>Reports.</i>	<i>Total.</i>
Leaks, defective taps, chokes, &c.	1,290

Anti-Rabies Measures.**TRAPPING, &c., OF BATS.**

No. of locations inspected for roosts of bats	29,521
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BATS CAUGHT.

Artibeus	80
Desmodus	—
Hemiderma	16
Molossus	10
Noctilio Leporinus	—
Saccopteryx	..	..	..	..	29
				—	*135

* Besides these, 17 Desmodus, 50 Artibeus, 41 Hemiderma were caught in adjacent districts outside the City limits.

In addition, the Anti-Rabies Unit of this Department, working in conjunction with the Government Unit, caught 30 Desmodus and 2 Hemiderma also outside the City limits.

Building Plans, etc.

Reports made by the Public Health Department were as follows :—

	Number.
On plans, &c., for reconstruction or reconditioning of buildings	427
On applications for leases of land in Woodbrook..	42
On premises in which building operations were in progress	344
On applications for certificate of completion of buildings	27

Prosecutions.

<i>Offences.</i>	<i>No. of Cases.</i>	<i>Total Fines, &c.</i>
Failing to comply with nuisance notice	11 6 2	\$140.00 Reprimanded. Dismissed.
Failing to provide proper dustbin	3	\$7.40
Hawking or carrying milk without licence or badge ..	24 2	\$156.70 Reprimanded.
Occupying insanitary bakehouse	1 5	\$24.00 Reprimanded
Throwing offensive matter in sewer track (Woodbrook)	1	Reprimanded
Total	39	\$328.10
	14	Reprimanded.
	2	Dismissed.

Changes in the Staff.**RESIGNATIONS.**

J. A. Wood, Sanitary Inspector	Resigned as from 1st May, 1943.
Leo. St. Cyr, do.	do. do.

TRANSFERS.

G. Alkins, Clerical Assistant, transferred to Accounting Department, by appointment to post of Ledger Keeper, as from 1st September, 1943.

DISMISSALS.

M. H. Hinkson, Sanitary Inspector ..	Post declared vacant as from 27th May, 1943.
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Leave of Absence.

<i>Officers.</i>	<i>Vacation Leave.</i>	<i>Sick Leave.</i>
	<i>No. of Days.</i>	<i>No. of Days.</i>
Ashe, G.—Sanitary Inspector	—	9
Barker, S.—Overseer	30	—
Boxill, E.—Sanitary Inspector	97	—
De Four, H.— do.	56	7
Forde, G.— do.	21	—
Howard, J. R.— do.	21	—
Mitchell, T. M.—Chief Clerk	21	—
Parris, J. E.—Overseer	38	10
Richards, E. A.—Sanitary Inspector	21	—
Rivers, F. B.— do.	28	4
Romain, A.— do.	112	—
Seon, F.— do.	42	—
St. Cyr, H.— do.	168	—
Wilson, A.—Messenger	42	—
Wilson, I.—Sanitary Inspector	28	—

Financial.

	1943.	1942.
Revenue collected by Public Health Department ..	\$2,005.75	\$716.11
Expenditure (Staff, Labour, Materials, &c.) ..	\$74,297.44	\$62,495.98

Acknowledgments.

The War that is being waged with its attendant evils of overcrowding, relative lack of material essential for the performance of sanitary work, shortage of labour, dissatisfaction of workers, and, also, reluctance on the part of certain owners of property to perform necessary works, &c., &c., have all combined to impose great strain, both physical and mental, on all workers attached to the Public Health Department. There can be no doubt that the work of the Department continues to increase every year with the increasing population of the City, and that we have been able to maintain a not unsatisfactory state of health and sanitation is due in no small measure to the devotion to duty of the Sanitary Inspectors, as a whole, and their unfailing loyalty and continuous cooperation under the able direction and leadership of those capable and hard working lieutenants, Mr. T. M. Mitchell, Cert. San. I., and Mr. O. E. Forde, Cert. San. I., Chief Clerk and Chief Sanitary Inspector, respectively.

I have the honour to record my grateful appreciation and again to express heartfelt thanks for a year's work well done under difficult and sometimes trying circumstances. In this the non-pensionable staff played as great a part as the pensionable, a combination that continues to work well together and must work well together if any degree of success is to be achieved.

I seize this opportunity once more to commend their valuable services to the favourable notice of the Local Authority.

